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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,011	10/28/2003	Makoto Ohtake	040356-0494	3724

22428 7590 04/27/2004

FOLEY AND LARDNER  
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3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER

DENION, THOMAS E

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 04/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Applicati n N .

10/694,011

Applicant(s)

OHTAKE ET AL.

Examin r

Thomas E Denion

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Moraal et al. (Moraal)

Regarding claims 1-2, 9-10 Moraal discloses a regeneration device for a filter which traps a particulate matter contained in the exhaust gas of an engine, the device regenerating the filter by burning the particulate matter trapped in the filter by raising a temperature of the filter, the device comprising: an exhaust gas temperature adjusting mechanism (column 2 lines 3-13) which adjusts a temperature of the exhaust gas; an exhaust gas flow rate adjusting mechanism which adjusts a flow rate of the exhaust gas; (EGR, intake throttle) and a programmable controller (20) programmed to: determine whether or not a regeneration condition for the filter is satisfied; raise the temperature of the exhaust gas to a first target exhaust gas temperature via the exhaust gas temperature adjusting mechanism when the regeneration condition is satisfied; determine whether or not the engine is in a predetermined rapid deceleration state;

(sensors 11,12; see column 3 lines 59+) and control the temperature of the exhaust gas to a second target (Figure 4 graph 64) exhaust gas temperature lower than the first target exhaust gas temperature via the exhaust gas temperature adjusting mechanism while increasing the flow rate of the exhaust gas via the exhaust gas flow rate adjusting mechanism, (Figure 4 graphs 65,66) when the engine is in the predetermined rapid deceleration state during regeneration.

The controller is further programmed to control the exhaust gas flow rate adjusting mechanism to prevent the flow rate of the exhaust gas from exceeding a predetermined upper limiting value. (column 2 lines 13+)

Regarding claims 3-5 see column 2 lines 3+.

Regarding claim 6 the engine comprises a turbocharger (8) which turbo charges the intake air of the engine, the turbocharger comprising an exhaust gas turbine which rotates due to an energy of the exhaust gas and a compressor which turbo charges the intake air according to a rotation of the exhaust gas turbine, and the exhaust gas flow rate adjusting mechanism comprises a variable nozzle which varies an exhaust gas flow rate inside the exhaust gas turbine. (Note that the turbine is shown to have a variable nozzle)

Regarding claim 7, the engine further comprises an exhaust gas recirculation passage (4) which recirculates part of the exhaust gas into an intake air of the engine, and the exhaust gas flow rate adjusting mechanism comprises an exhaust gas

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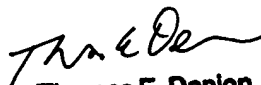
recirculation valve which varies an exhaust gas flow rate of the exhaust gas recirculation passage.

Regarding claim 8 see the input to "n" module (20).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references cited all deal with controlling the temperature of the particulate filter during deceleration.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas E Denion whose telephone number is 703 308-2623. The examiner can normally be reached on M-TH 5:30-4:00.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Thomas E. Denion  
Primary Examiner